

Application No.: 10/689,172

Case No.: 58683US003

**REMARKS**

Claims 1 to 37 are pending. Claims 12 to 28 have been cancelled. Claims 1, 5, 6, 8, 10, 11, 29, 31, 32, 34, and 37 are amended. Claim 38 has been added.

Claim 37 has been amended to correct a minor typographical error, i.e., reference step (d) was replaced with reference step (c), and reference step (c) was replaced with reference step (b). Note that claim 29, to which claim 37 refers, does not include a step (d). (See also page 15, lines 3-11.) Claim 31 has been amended to depend from claim 30 rather than from itself.

Claims 1 and 29 have been amended to recite that the adhesive comprises no more than 3% by weight acrylic acid repeat units, rather than no more than 5% by weight. Support for these amendments can be found at page 11, lines 8-10. Claim 1 was also amended to add the word "first" before the final use of the expression "adhesive layer" to maintain consistent terminology throughout the claim.

New claim 38 has been added. Support for new claim 38 can be found at, e.g., claims 1 and 9 as originally filed, page 8, line 10 – page 11, line 1 (describing useful adhesives), and page 12, line 22 – page 14, line 11 (describing surface-modified nanoparticles).

The remaining claim amendments are discussed below.

**Restriction Requirement**

Applicants confirm their election with traverse of the claims of Group I (i.e., claims 1-11 and 29-37), which was made during a telephone conversation with the Examiner on May 11, 2005. Please cancel claims 12-28 without prejudice to the filing of related applications.

**§ 101 Double Patenting Rejections**

Claims 1-11 and 29-37 have been provisionally rejected under 35 USC § 101 as claiming the same invention as that of claims 1-11 and 29-37 of co-pending Application No. 10/668,748. Application No. 10/668,748 has been abandoned rendering this rejection moot.

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**§ 112 Rejections**

Claims 1-11 and 29-37 stand rejected under 35 USC § 112, second paragraph, as purportedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

According to the Patent Office, in claims 1-11 the elements “adhesive” and “primer” should be characterized as layers. (Office Action mailed May 25, 2005; ¶ 10.) Applicants have amended claims 1, 6, 10, and 11 in accordance with the Examiner’s preference. Applicants respectfully submit that these amendments are not intended to, and do not further limit the scope of the claims relative to the claims as originally filed. In addition, the Patent Office has stated, “the use of colons in Markush groups is not believed proper.” (*Id.*) Applicants have amended claims 5, 6, 8, 31, 32, and 34 to delete the colons in accordance with the Examiner’s preference.

The Patent Office requested clarification of the term “consisting essentially of” as used in the claims. (*Id.*) This term is defined at page 11, lines 20-23, to mean “free of an effective amount of a component that reacts with the adhesive or the substrate (i.e., ambifunctional silane), and/or any polymeric binders that act to increase the adhesion of the adhesive to the substrate.” The primer may contain other additives (e.g., surfactants) provided such additives do not substantially react with the adhesive or the substrate. (Page 14, lines 21-23.)

In summary, Applicants submit that the rejections of claims 1-11 and 29-37 under 35 USC § 112, second paragraph, have been overcome, and that the rejections should be withdrawn.

**§ 103 Rejections**

Claims 1-11 and 29-37 stand rejected under 35 USC § 103(a) as purportedly being unpatentable over Lange et al. (US 4,816,333) taken either individually, or for claims 6 and 32 in view of Melancon et al. (US 2003/0152768), or for all the claims in view of EP 0372756 B1.

The present invention provides an adhesive article comprising a first substrate; a first adhesive layer, and a first primer layer interposed between at least a portion of the first major surface of the substrate and at least a portion of the first adhesive layer. The first primer layer consists essentially of nanoparticles and the first adhesive layer comprises no more than 3% by weight acrylic acid repeat units. (See, e.g., claim 1.)

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Lange et al. describe a coated article having a silica coating thereon, which provides antireflection properties. (Col. 2, lines 35-46.) According to Lange et al., “[t]he excellent adhesion of the coating to the substrate and the adhesive of the test tape also demonstrates the utility of the coating as a primer for adhering adhesives to substrates ....” (Col. 4, lines 5-9, emphasis added.) The test tape of Lange et al. was Scotch Brand Magic transparent tape (col. 6, lines 31-34), the adhesive of which contains more than 3% by weight acrylic acid repeat units (see attached Declaration), and thus is expressly excluded from claims 1-11 and 29-37.

The Patent Office acknowledged that Lange et al. fail to describe, teach, or suggest any other adhesive compositions. However, the Patent Office asserted, “it is a parameter well within the ordinary skill in the art to utilize other adhesives besides acrylics.” (Office Action mailed May 25, 2005; ¶ 12.)

Applicants respectfully submit that Lange et al.’s general teaching of potential primer performance based on a single adhesive presents an “obvious to try” situation. At best, Lange et al. may pique a scientist’s curiosity to investigate further, but the disclosure of Lange et al. does not contain a sufficient teaching that the claimed result would be achieved. (See, e.g., *In re Eli Lilly & Co.*, 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990).) Although absolute predictability is not required, “a reasonable expectation that the beneficial result will be achieved is necessary to show obviousness.” (*In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).) Applicants respectfully submit that Lange et al. fail to provide this requisite reasonable expectation of success. This is particularly true in light of the teachings of EP 0372756 B1.

EP 0372756 B1, which was cited by the Patent Office (Office Action mailed May 25, 2005; ¶ 12), expressly teaches away from the use of the primers of the present invention. EP 0372756 B1 repeatedly and explicitly states that the gelled network of nanoparticles must contain ambifunctional silane in order to function as a primer. (See page 2, lines 40-44 and 50-51; page 3, lines 22-23 and 49-50; page 5, lines 23-26; and claim 1.) Thus, EP 0372756 B1 teaches away the inventive primer layer, which consists essentially of nanoparticles (i.e., one that, *inter alia*, is free of ambifunctional silane) for bonding a wide variety of adhesives to a substrate. Applicants note that when, as here, the inventors achieve the claimed invention by doing what those skilled in the art suggested should not be done, there is strong probative evidence of nonobviousness.

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(See *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986), *on rehearing*, 231 USPQ 160 (Fed. Cir. 1986).)

In summary, at best Lange et al.'s general statement regarding primer performance based on a single, high acrylic acid content adhesive might peak a scientist's curiosity. However, this limited disclosure does not provide the requisite reasonable expectation of success necessary to establish a *prima facie* case of obviousness, particularly in light of the express teachings to the contrary contained throughout EP 0372756 B1.

Melancon et al. is cited solely for its description of silicon polyurea based adhesives with reference to pending claims 6 and 32. (See Office Action mailed May 25, 2005; ¶ 12.) Applicants respectfully submit that the Patent Office has failed to show how Melancon et al. describe, teach, or suggest a primer consisting essentially of nanoparticles, and thus has failed to show how Melancon et al. overcome the deficiencies of Lange et al., as discussed above.

For at least these reasons, the rejection of Claims 1-11 and 29-37 under 35 USC § 103(a) as purportedly being unpatentable over Lange et al. (US 4,816,333) taken either individually, or for claims 6 and 32 in view of Melancon et al. (US 2003/0152768), or for all the claims in view of EP 0372756 B1 (Strobel et al.) is unwarranted and should be withdrawn.

With respect to new claim 38, Applicants note that Lange et al. fail to describe, teach, or suggest the use of surface-modified nanoparticles. For at least this reason, claim 38 is both novel and non-obvious in light of Lange et al.; thus claim 38 should be allowed.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested, and allowance of claims 1-11 and 29-38, as amended, at an early date is solicited.

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Date

Respectfully submitted

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SAB/TMS/kmm

Attachment: Declaration regarding Scotch Brand Magic tape adhesive